

REMARKS

Applicant has reviewed and considered the Office Action mailed on June 14, 2007, and the references cited therewith.

No claims are amended, canceled, or added; as a result, claims 5, 6, 8-13, 15, 17-19, 21, 22, 24-26, and 28-31 are now pending in this application.

35 USC §103 Rejection of the Claims

Claims 5, 6, 8, 9, 30, and 31 were rejected under 35 USC § 103(a) as being unpatentable over Corbaton et al. (U.S. Publication No. 2002/0186761) in view of Driesen et al. (U.S. Publication No. 2005/0111525) in view of Zvonar (U.S. Publication No. 2003/0099310) and in further view of Blanksby et al. (U.S. Patent No. 6,744,814).

Claims 10, 11, and 17 were rejected under 35 USC § 103(a) as being unpatentable over Lindoff (U.S. Patent No. 6,449,320) in view of Driesen et al. (U.S. Publication No. 2005/0111525) and in further view of Blanksby et al. (U.S. Patent No. 6,744,814).

Claim 15 was rejected under 35 USC § 103(a) as being unpatentable over Lindoff (U.S. Patent No. 6,449,320) in view of Driesen et al. (U.S. Publication No. 2005/0111525) in view of Blanksby et al. (U.S. Patent No. 6,744,814) and in further view of Hwang (U.S. Publication No. 2002/0085649).

Claims 12 and 13 were rejected under 35 USC § 103(a) as being unpatentable over Lindoff (U.S. Patent No. 6,449,320) in view of Driesen et al. (U.S. Publication No. 2005/0111525) in view of Blanksby et al. (U.S. Patent No. 6,744,814) in further view of Jalali et al. (U.S. Patent No. 7,099,384).

Claims 18 and 21 were rejected under 35 USC § 103(a) as being unpatentable over Corbaton et al. (U.S. Publication No. 2002/0186761) in view of Tanada (U.S. Publication No. 2004/0037262) and in further view of Blanksby et al. (U.S. Patent No. 6,744,814).

Claim 19 was rejected under 35 USC § 103(a) as being unpatentable over Corbaton et al. (U.S. Publication No. 2002/0186761) in view of Tanada (U.S. Publication No. 2004/0037262) in view of Blanksby et al. (U.S. Patent No. 6,744,814) and in further view of Driesen et al. (U.S. Publication No. 2005/0111525).

Claims 22, 24, 26, and 28 were rejected under 35 USC § 103(a) as being unpatentable over Lindoff (U.S. Patent No. 6,449,320) in view of Tanada (U.S. Publication No. 2004/0037262) and in further view of Blanksby et al. (U.S. Patent No. 6,744,814).

Claims 25 and 29 were rejected under 35 USC § 103(a) as being unpatentable over Lindoff (U.S. Patent No. 6,449,320) in view of Tanada (U.S. Publication No. 2004/0037262) and in view of Blanksby et al. (U.S. Patent No. 6,744,814) and in further view of Jalali et al. (U.S. Patent No. 7,099,384).

Applicants traverse these rejections on the grounds that a *prima facie* case of obviousness has not been presented because:

- 1) The Driesen reference has not been established as a valid prior art reference; and
- 2) The references do not disclose, teach, or suggest the claimed subject matter.

1) The Driesen reference has not been established as a valid prior art reference

The instant application has a filing date of September 25, 2003, and the Driesen reference is a published patent application having a filing date of August 13, 2004. The Driesen reference claims priority to a provisional patent application having a filing date of August 26, 2003. Accordingly, the Driesen reference only qualifies as prior art under 35 U.S.C. 102(e) to the extent that the provisional application “properly supports the subject matter used to make the rejection in compliance with 35 U.S.C. 112, first paragraph.” See MPEP 706.02(f)(1) and MPEP 2136.03.III

Applicants respectfully submit that the burden of showing that the provisional application “properly supports the subject matter used in the rejection” falls on the examiner because applicants in the instant application do not have access to the unpublished provisional application. Because it has not been shown that the subject matter used to make the rejection is entitled to the filing date of the provisional patent application, a *prima facie* case of obviousness has not been presented. Accordingly, applicants respectfully request that the proper showing be made, or that the rejection be withdrawn.

2) The references do not disclose, teach, or suggest the claimed subject matter

All of the independent claims in the instant application recite the weighting of an estimated symbol based on an *estimation error*. For example, claims 5 and 6 recite weighting an estimated symbol based on an *initial DC estimation error*; claims 10, 22, and 26 recite weighting estimated symbols based on an *initial estimation error of a channel parameter*; and claim 18 recites weighting soft decisions by an *estimation error*.

Applicants respectfully submit that none of the cited references disclose, teach or suggest weighting based on estimation errors.

The Driesen reference

As pointed out in the office action on pages 3, 5, and 7, the Driesen reference estimates a DC offset (Fig. 3, 330) by comparing a re-modulated signal with the input signal. Applicants submit that Driesen does not determine an estimation error, but rather only determines a single estimate. Further, the Driesen reference does not teach weighting based on an estimation error.

The Zvonar reference

The cited portions of Zvonar describe calculating an initial DC offset $A(0)$ that is the average DC offset for an entire burst of samples $r(n)$ where $1 \leq n \leq N$. $A(0)$ is subtracted from all samples in the burst, and then the DC offset $A(n+1)$ estimation is updated for each sample. For each sample n , the computed DC offset $A(n+1)$ is forwarded to the data receiver. See paragraph 0077 of Zvonar. Applicants respectfully submit that Zvonar does not disclose, teach, or suggest determining an estimation error by comparing a second estimation (arrived at by re-modulation) with an initial estimate. Further, the Zvonar reference does not teach weighting based on an estimation error.

The Blanksby reference

The cited portion of the Blanksby reference describes comparing a measured channel quality metric with a threshold. Applicants respectfully submit that the Blanksby reference does not describe an estimation error or comparing an estimation error to a threshold. Further, applicants submit that Blanksby does not teach weighting based on an estimation error.

The Tanada reference

The cited portion of the Tanada reference describes subtracting a re-modulated data stream from a received data stream. Applicants respectfully submit that the Tanada reference does not describe comparing an initial estimate and a re-estimate of a channel parameter (or DC offset). Further, applicants submit that Tanada does not teach weighting based on an estimation error.

Applicants respectfully submit, therefore, that the independent claims are in condition for allowance. Further, applicants believe the dependent claims are in condition for allowance at least by virtue of dependency.

Reservation of Rights

Applicants do not admit that references cited under 35 USC §§ 102(a), 102(e), 103/102(a), or 103/102(e) are prior art, and reserve the right to swear behind them at a later date. Arguments presented to distinguish such references should not be construed as admissions that the references are prior art.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (952-473-8800) to facilitate prosecution of this application.

Respectfully submitted,

EYAL KRUPKA

By his Representatives,

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Telephone Number: 952-473-8800

Date 9/14/07

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 14 day of September, 2007.

Jenny Kathman
Name

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